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**STATISTICAL
REPORT
1981**

Social Hygiene Services

**Sexually Transmitted
Diseases**



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STATISTICAL REPORT

1981

SOCIAL HYGIENE SERVICES

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Director

PROVINCE OF ALBERTA

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OVERVIEW

INTRODUCTION

Social Hygiene Services is the branch of Social Services and Community Health responsible for all aspects of the sexually transmitted disease control program in Alberta. The goal of the service is to provide a comprehensive program for the control of sexually transmitted diseases and therefore provides diagnostic and treatment services through clinics located in Edmonton, Calgary and Lethbridge, epidemiologic services, consultation to physicians, data monitoring, disease surveillance, and public and professional education. Although operated through the auspices of the health unit, the Fort McMurray clinic also provides these same services to that city and its surrounding communities.

THE DISEASES

Disease surveillance is maintained for the notifiable diseases: gonorrhea, syphilis, lymphogranuloma venereum, granuloma inguinale and chancroid.

An increase in the number of cases of gonorrhea was not reflected in the incidence rate which dropped slightly from 1980. The actual cases of reported confirmed disease rose by 2%, with the incidence rate dropping to 540.6 per 100,000 population, down 1.4% from 1980. Since all other variables appear to have remained stable, then it is possible to suggest that the changing economic climate may have influenced incidence rates, and the prolonged postal strike may have reduced the number of reports. This is conjecture, however, since the reasons for the change in reported rates are not known. Even with this overall levelling it should be noted that there was a continued increase in the incidence rate for females aged 15-19 years. This observation should serve to stress the importance of prompt diagnosis and treatment as well as continued education for this group in order to prevent pelvic inflammatory disease and its possible sequelae.

Both the number of cases and incidence rate for syphilis rose markedly in 1981. Similar observations have been noted by other venereal disease control agencies in North America and it has been conjectured that this may be a unique and limited

situation, therefore not reflecting the beginning of an upward trend in the incidence of this disease.

Nine (9) cases of penicillinase-producing Neisseria gonorrhoeae (PPNG) were indentified and reported in 1981. In 7 cases the infection was acquired in a PPNG endemic area.

The non-reportable sexually transmitted diseases, particularly herpes genitalis and non-gonococcal urethritis, continue to be common problems in our clinic populations.

There were no reported cases of the remaining three notifiable diseases.

PROGRAMS

1981 was highlighted by the relocation of the head office and Edmonton clinic in July. With this provision of adequate space, updated equipment and the resultant improvement in the working environment Social Hygiene Services is better able to meet the needs of the public and health care professionals with regard to sexually transmitted diseases.

The evening clinics established in 1980 in both Edmonton and Calgary have been reviewed and determined as successful and necessary service extensions.

The allocation of another nurse investigator to the mobile clinic has resulted in a large increase in the number of located versus unlocated contacts. The addition of a nurse educator in Calgary has served to improve the education program in that area.

As part of an overall public awareness campaign posters appeared on the buses in Edmonton, Calgary and Lethbridge for a thirteen week period in the spring. Newspaper advertising and media interviews supplemented these bus cards. The campaign will be continued in 1982 with the addition of drive-in advertisements.

Produced in the same format as Herpes II a pamphlet entitled NGU was developed and distributed throughout the province,

through the clinics and education office. Due to the number of requests for these pamphlets, drafts of other publications on common sexually transmitted diseases are being considered.

Clinical research projects through our clinics were continued in 1981. Comparative therapeutic trials in uncomplicated gonococcal infections received the most attention this year.

CASES OF REPORTED CONFIRMED GONORRHEA AND SYPHILIS

TABLE 1

Table 1 indicates the number of cases of gonorrhea and syphilis reported to Social Hygiene Services.

The number of cases of reported confirmed gonorrhea increased by 218 from 1980, an increase of 2%. Male cases exceeded female cases by 2784; the male to female ratio being 1.63 to 1.0, similar to the sex distribution recorded for the previous three years.

The number of syphilis cases counted in 1981 increased by 74. The breakdown of stages of the disease show that the infectious stages (primary, secondary and early latent) accounted for 42.7% of the total cases reported, an increase in percentage from the 36.5% noted in 1980. Late Latent cases comprised more than half the cases counted (51.4%). In addition 5 cases of neurosyphilis were diagnosed. Although there was a 40.9% increase in the number of cases counted over 1980, the proportion of cases per disease stage remained similar to the past two years.

CASES OF REPORTED CONFIRMED GONORRHEA AND SYPHILIS BY AGE AND SEX

TABLE 1

	1 - 4		5 - 9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Age N/S		TOTAL		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
GONORRHEA	4	1	-	5	-	9	16	48	1031	1573	2722	1706	1567	617	1246	333	536	80	46	6	70	76	11692
SYPHILIS (TOTAL)				1	-	-	-	-	5	4	30	12	34	11	59	15	33	19	20	12			255
PRIMARY									1	3	10	6	12	2	19	1	8	1	1				64
SECONDARY									1	-	4	1	8	2	10	1	2						29
EARLY LATENT									2	1	1	-	4	1	5	1	-	1					16
LATE LATENT									1	-	12	5	9	6	23	11	21	17	16	10			131
LATENT UN-SPECIFIED											2								1				3
LATE CNS*																1	2	1	1				5
CONGENITAL				1																			1
STAGE UN-DETERMINED											1	-	1	-	2	-	-	-	1	1			6
TOTAL	4	1	-	6	-	9	16	48	1036	1577	2752	1718	1601	628	1305	348	569	99	66	18	70	76	11947

* Central Nervous System

Gonorrhea

Male 7238

Female 4454

Syphilis

Male 181

Female 74

INCIDENCE RATES FOR GONORRHEA AND SYPHILIS

TABLES 2 and 3

The incidence rate for gonorrhea of 540.6 represents a small (1.4%) decline from the 1980 rate of 547.8 but continues to maintain the high rate noted in 1979 (529.9).

The 20-24 year old group continues to demonstrate the highest age specific rate for gonorrhea. As with 1980, 79.6% of gonorrhea reported was attributable to the age group 15-29 years; 60.6% occurred in the 15-24 bracket and the individual age groups 15-19, 20-24 and 25-29 contributed 22.3%, 38.2% and 19.1% respectively to the total infections reported. These observations are unchanged from 1979 and 1980.

The age specific rates for males showed decreases in the three age groups between 20-39 years. Increases were noted for those less than 15 years and those 40-59 years, while the rates for females increased in the 15-19, 20-24 and 40-59 groups. As with males of the age group 25-29 the female group showed an almost 15% decrease in rate.

The syphilis rate of 11.8 in 1981 demonstrates a 37.2% increase over 1980. The male to female ratio was 2.4:1, a division similar to recent years. Homosexually acquired infections accounted for 16.5% of all syphilis cases and 32.1% of the infectious categories. This pattern has not changed appreciably from either 1979 or 1980.

ALBERTA: 1981
DISEASE INCIDENCE
EXPRESSED AS A RATE PER 100,000 POPULATION

TABLE 2

GONORRHEA

Age Sex	< 15	15-19	20-24	25-29	30-39	40-49	60+	TOTAL
MALE	7.3	993.0	2268.7	1275.8	727.9	265.9	42.6	656.0
FEMALE	24.0	1588.	1482.8	548.8	215.8	41.1	4.9	419.8
COMBINED	15.4	1283.7	1884.0	928.4	485.0	155.4	22.6	540.2

TABLE 3

SYPHILIS

Age Sex	< 15	15-19	20-24	25-29	30-39	40-59	60+	TOTAL
MALE	-	4.8	25.0	27.7	34.5	26.4	18.5	16.4
FEMALE	0.4	4.0	10.4	9.8	9.7	9.8	9.8	7.0
COMBINED	0.2	4.4	17.9	19.1	22.7	13.1	13.9	11.8

GONORRHEA NOTIFICATIONS BY REPORTING AGENCY

TABLE 4 and GRAPH 1

In 1981, cases in which a positive culture was forwarded to Social Hygiene Services but no physician notification was received were counted as separate rather than in the 'physician' category.

Notifications received from physicians accounted for 41.3% of all reported gonorrhea. Positive cultures accounted for 6.7% and when combined with physician reported cases their total comprised 48%. The Social Hygiene clinics reported a total of 51% with the remaining 1% attributable to the other reporting agencies. These percentages are similar to those calculated for the previous three years, continuing the pattern of a near equal division between physician and clinic utilization by the population.

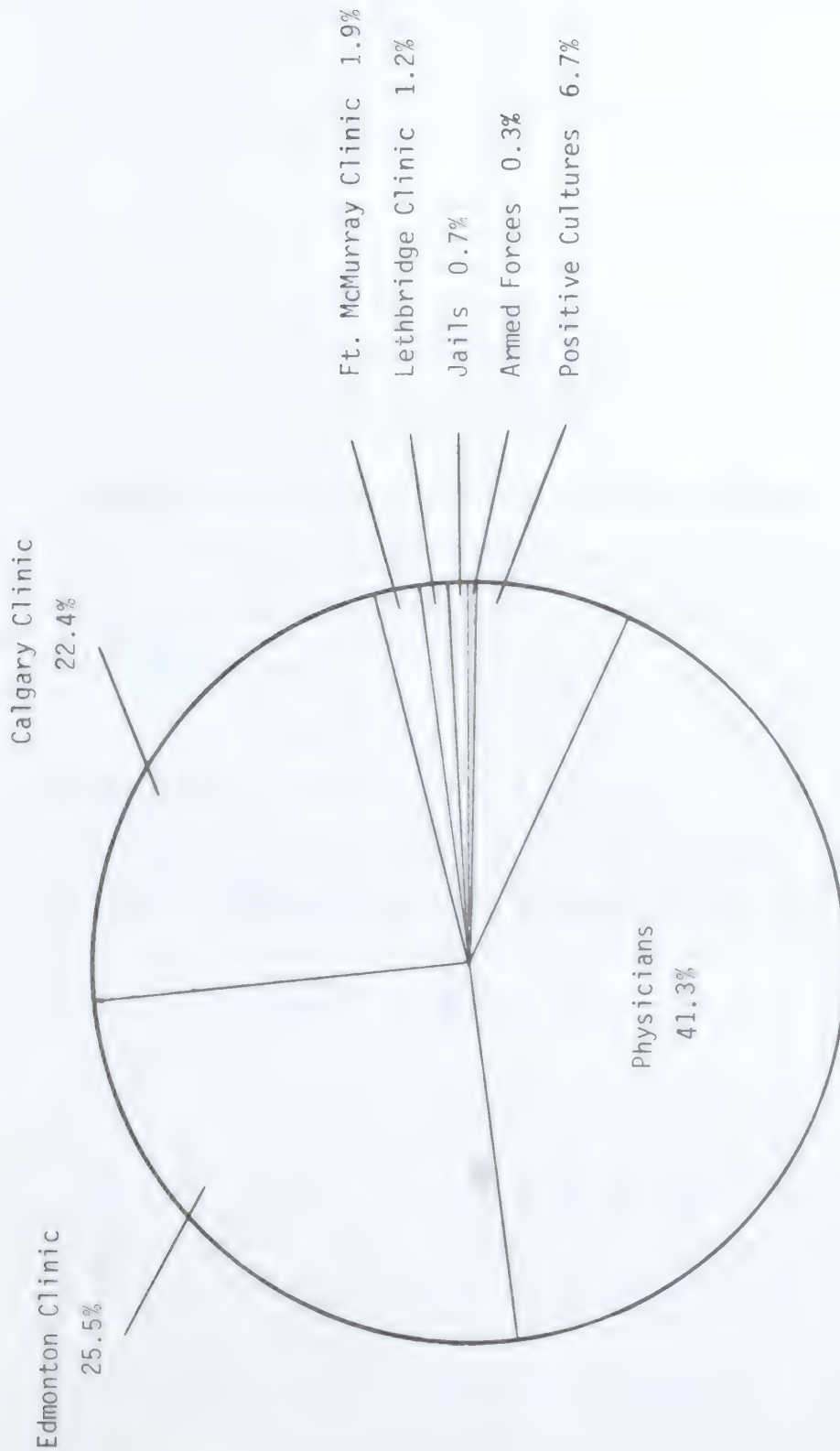
While the total number of cases reported in 1981 increased by 2% over the 1980 count, the number of cases seen by physicians (including positive cultures) showed a 4.2% increase with the combined clinic cases decreasing by less than 1%.

TABLE 4

CASES OF CONFIRMED
GONORRHEA ACCORDING TO REPORTING AGENCY
BY AGE AND SEX

	<1		1 - 4		5 - 9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Age N/S		TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
PHYSICIANS	1	1	-	3	-	5	7	28	391	834	903	941	469	342	398	182	189	51	19	3	32	36	4825
EDMONTON CLINIC							2	4	269	279	828	292	508	96	401	71	188	15	16	-	6	1	2976
CALGARY CLINIC							1	7	263	265	739	281	456	100	339	39	118	4	9				2621
LETHBRIDGE CLINIC							1	1	17	17	24	17	21	5	15	4	17	1	1				141
FT. McMURRAY CLINIC							1	1	25	33	81	17	32	4	23	3	4	-	-	-	1		225
E.R.C.* & FT. SASK JAIL									6	6	14	8	6	3	4	2	1	1					51
OTHER JAILS									7	3	7	2	1	-	4	-	1	-	-	1			26
ARMED FORCES									4	1	16	4	6	1	4	1	1	-	-	-	2		40
POSITIVE CULTURES	3	-	-	2	-	4	4	7	49	135	110	144	68	66	58	31	17	8	1	2	29	49	787
TOTAL	4	1	-	5	-	9	16	48	1031	1573	2722	1706	1567	617	1246	333	536	80	46	6	70	76	11692

GRAPH 1



ALBERTA - 1981

PERCENTAGE OF CONFIRMED GONORRHEA REPORTED BY EACH AGENCY

DISEASE TRENDS SINCE 1945

GRAPH 2 and TABLE 5

The graph and accompanying table illustrate disease trends for gonorrhea and syphilis over the past thirty-six years. Following an apparent levelling period from 1975 to 1978 the gonorrhea rate rose markedly in 1979 and again in 1980 with the 1981 rate dropping only slightly.

Syphilis rates have remained relatively stable since the early 1960's. The 1981 rate of 11.2 is the first time since 1967 that the rate has exceeded 10/100,000 population.

1945 - 1981

YEAR	GONORRHEA		SYPHILIS	
	CASES	RATES	CASES	RATES
1945	1,881	232.8	599	73.1
1946	2,457	301.7	503	62.6
1947	2,257	273.9	472	59.2
1948	2,032	237.9	319	37.4
1949	1,857	209.8	288	32.5
1950	1,981	152.0	165	18.1
1951	1,777	189.1	157	16.7
1952	2,450	251.8	135	13.9
1953	2,608	257.7	159	15.7
1954	2,819	266.7	212	20.1
1955	2,862	180.1	189	17.3
1956	2,842	253.0	145	12.9
1957	2,499	215.4	112	9.7
1958	2,548	211.3	167	13.8
1959	2,407	192.9	226	18.1
1960	2,560	198.3	186	14.4
1961	2,712	203.6	140	10.5
1962	3,560	260.0	134	9.8
1963	4,106	292.7	155	11.0

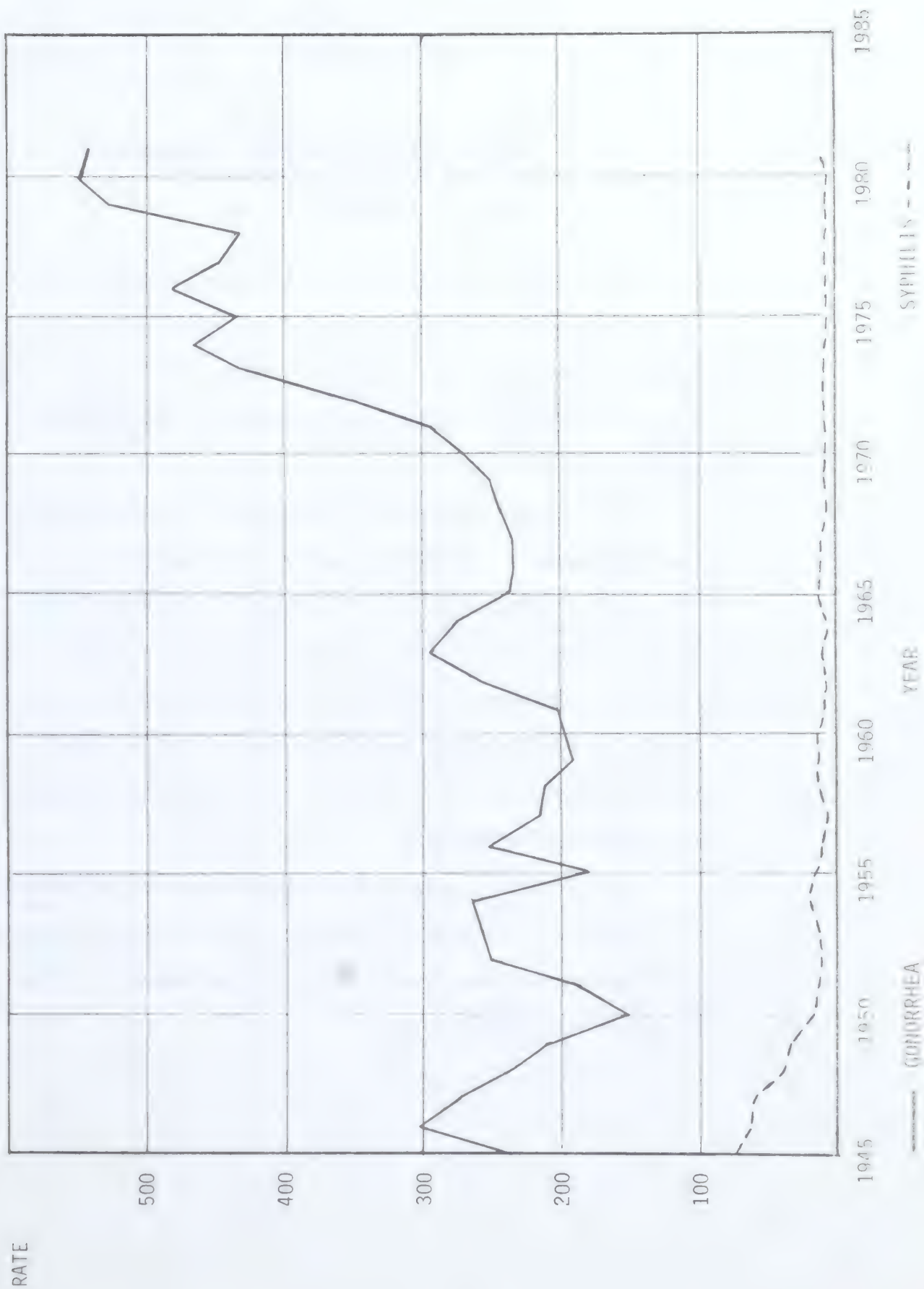
YEAR	GONORRHEA		SYPHILIS	
	CASES	RATES	CASES	RATES
1964	3,953	276.7	110	7.7
1965	3,455	238.3	203	14.0
1966	3,447	235.7	208	14.2
1967	3,527	236.7	203	13.6
1968	3,729	244.4	118	7.7
1969	3,967	254.3	133	8.5
1970	4,290	268.1	134	8.0
1971	4,806	294.1	127	7.8
1972	5,842	353.2	143	8.6
1973	7,300	434.5	158	9.2
1974	8,036	466.9	136	7.8
1975	7,341	432.4	121	5.9
1976	8,657	480.3	108	5.7
1977	8,208	446.6	132	7.2
1978	8,451	430.9	165	8.4
1979	10,730	529.9	173	8.5
1980	11,474	547.8	181	8.6
1981	11,692	540.2	255	11.8

GRAPH 2

ALBERTA

INCIDENCE RATES PER 100,000 POPULATION FOR SYPHILIS AND GONORRHEA

1945 - 1981



NOTIFICATIONS AND CONTACT INFORMATION

TABLE 6

This table depicts the total number of contacts named by patients utilizing the services of the reporting agencies as well as the number of contacts listed on notification forms where the information given was considered of an investigable nature.

The overall percentage of investigable contacts per the total named was 60.8%, similar to the previous 2 years. Physicians reported 0.8 contacts per notification while the clinics ranged from 1.2 to 1.4 contacts per notification forwarded. Although not reflected in the table a large proportion of notifications from physicians do not list any contact information while all patients reported by the clinics will have been interviewed.

Mobile clinic figures do not appear as most patients who are located will have been forwarded to physicians for disease confirmation and therefore usually not interviewed for contacts by the mobile investigators.

TABLE 6

ALBERTA: 1981

NUMBER OF CONTACTS NAMED ON
NOTIFICATIONS RECEIVED FOR CONFIRMED
CASES OF GONORRHEA AND SYPHILIS

REPORTING AGENCY	Total Notifications Received	Total Number of Contacts Named on Notifications	Contacts Named with Investigable Information
Physicians	4910	3343	2317
Edmonton Clinic	3071	3976	2152
Calgary Clinic	2704	3699	2168
Lethbridge Clinic	143	198	150
Ft. McMurray Clinic	228	284	202
All Jails	85	77	48
Armed Forces	40	42	26
Total	11181	11619	7063

CONTACT INVESTIGATIONS BY CLINICS

TABLE 7

Investigations carried out by nurse investigators in each of the clinics include follow-up of contacts to syphilis and confirmed gonorrhea and the location of persons for whom a positive culture or serology has been received but no record of treatment is available.

The total number of investigations carried out increased by 300 over 1980; the number of contacts who were located increased by 500 with a similar decline in the number of unlocated contacts. 72% of the investigations conducted resulted in the location and/or treatment of the contact.

Investigations of contacts to gonorrhea are closed after 3 months, while those of contacts to syphilis remain open for one year.

TABLE 7

ALBERTA: 1981

NUMBER AND OUTCOME OF CONTACT INVESTIGATIONS *
CARRIED OUT BY SOCIAL HYGIENE CLINICS

CLINIC	Investiga- tions Resulting in location of contact	Investiga- tions Closed - Contact - Unlocated	Investiga- tions Remaining open	Total Number of Investigations
EDMONTON	2726	576	489	3791
CALGARY	2797	602	400	3799
LETHBRIDGE	179	36	47	262
FT. MCMURRAY	263	62	28	353
MOBILE	1288	223	359	1870
TOTAL	7253	1499	1323	10075

* Includes investigations carried out as
follow-up to positive cultures and serologies.

SOCIAL HYGIENE CLINICS - WORKLOAD

TABLES 8 and 9

For all the clinics, new admissions, total visits and laboratory testing remained similar to or exceeded the 1980 levels. In Edmonton and Calgary, patient clinic visits averaged 322 and 364 per week respectively.

Although the number of confirmed gonorrhea cases reported by the clinics declined by 0.4% from 1980, laboratory testing for this infection increased almost 8%.

The Fort McMurray clinic, established in 1979, maintained its 1980 utilization levels.

TABLE 3

1981 - SOCIAL HYGIENE CLINIC INVESTIGATIONS

URETHRAL SMEARS FOR <u>N. GONORRHOEAE</u>		EDMONTON CLINIC		CALGARY CLINIC		LETHBRIDGE CLINIC		FT. MCMURRAY CLINIC	
		Taken	Posi- tive	Taken	Posi- tive	Taken	Posi- tive	Taken	Posi- tive
MALE		3484	1983	2656	1468	202	79	206	148
GONORRHEA CULTURES	Urethral	7116	517	9719	1422	465	97	601	93
	Rectal	405	37	676	107	21	6	4	0
	Pharyngeal	7438	101	1829	42	345	4	534	12
	TOTAL	14959	655	12224	1571	831	107	1139	105
GONORRHEA CULTURES FEMALE	Cervix/urethra	5251	859	5893	768	142	46	439	69
	Rectal	508	58	41	3	96	10	4	0
	Pharyngeal	3156	191	1826	57	163	3	300	1
	TOTAL	3915	1108	7760	828	401	59	743	70
DARKFIELD EXAMINATIONS		49	3	13	0	-	-	1	0
CULTURES FOR <u>CHLAMYDIA TRACHOMATIS</u>		3800	180	3536	96	48	2	585	49
CULTURES FOR <u>HERPES SIMPLEX VIRUS</u>		163	48	259	63	8	2	57	2
CULTURES FOR <u>CANDIDA ALBICANS</u> AND <u>TRICHOMONAS VAGINALIS</u>		1251	526	5893	1578	235	48	439	135

TABLE 9
SEROLOGIC TESTS FOR SYPHILIS
PATIENT VISITS TO CLINICS

1981

SEROLOGIC TESTS for SYPHILIS	Clinic patients	EDMONTON CLINIC	CALGARY CLINIC	LETHBRIDGE CLINIC	Ft. McMURRAY CLINIC	MOBILE CLINIC
		10569	12213	529	740	101
	Pre-marital	7516	10692	867	-	-
	Pre-employment	621	-	-	1	-
	TOTAL	18706	22905	1396	741	101
PATIENT VISITS	New admissions	5882	7165	472	571	-
	Total visits	16764	18955	1025	1157	387*

* Mobile clinic records visits made to patients by investigators.

EDUCATION ACTIVITIES

TABLE 10

The education office of Social Hygiene Services has available resource personnel for consultation and the delivery of sexually transmitted disease information.

A major focus of the program is to reach those in the age group 15-19 years both through school presentations and public awareness. The number of school presentations again increased particularly at the senior high level.

Updating or preparing secondary resource people serving the community is achieved through the delivery of presentations to health unit/clinic and hospital nurses, and students in nursing and paramedical education programs.

Individuals in adult development and life skills programs comprise another large group receiving information, as reflected in the general public and others' category.

1981 also saw the introduction and wide distribution of the pamphlet entitled NGU (Non-gonococcal urethritis).

Public awareness approaches took the form of bus cards in the three major centres, newspaper advertisements and media interviews.

TABLE 10

EDUCATION SESSIONS PRESENTED IN 1981

<u>Type</u>	<u>Number</u>
Schools - Junior High - - - - -	78
Senior High - - - - -	82
College Programs - - - - -	14
Nursing and Paramedical Education Programs - - - - -	26
Inservice: Hospital - - - - -	16
Health Unit/Clinics -	26
Health Care Agencies - - - - -	39
General Public and Others - - - - -	35
Presentations by Medical Staff - - -	15
TOTAL - - - - -	331

Students attending Social Hygiene
Clinics for clinical experiences:

- Medical - - -	25
- Nursing - - -	26

